BOTANICAL GAZETTE.

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FENDLER'S FERNS OF TRINIDAD.—Mr. August Fendler, the veteran collector, as has been seen from a letter of his published in the GAZETTE for July, has been for a year or two in Trinidad, where he is making a very full and fine collection of Ferns. Sets of about 78 species have been received, and are now for sale at the Herbarium of Harvard University. The specimens are ample, and are very carefully prepared. The following is a list of the species now distributed. The omitted numbers will be supplied in later distributions.—D. C. EATON.

1. *Adiantum Kaulfussii*, Kze.—*A. platyphyllum*, Swz., ex Keyserling.
2. 2a. *Adiantum intermedium*, Swartz.
3. Near *Adiantum tetraphyllum*, Willd., but has acuminate pinnules, a character admitted by Hooker as belonging to this species.
4. *Adiantum pulverulentum*, L. (In some sets No. 4 has fruit on the end of the pinnule, and thus recedes from the type of this species.)
5. *Adiantum lucidum*, Swartz.
6. *Adiantum villosum*, L.
7. *Cheilanthes radiata*, R. Br.
8. *Polypodium aureum*, L.
9. *Hemionitis palmata*, L.
10. *Gymnogramme calomelanos*, Kaulf.
11. *Blechnum occidentale*, L.
13. *Asplenium Shepherdi*, Sprengel.
14. *Asplenium grandifolium*, Swz.
15. *Aspidium macrophyllum*, Swz.
16. *Aspidium subquinquefidum*, Beauvois.—*A. funestum*, Kunze, Grisebach.
17. *Aspidum molle*, Swartz.
18. *Aspidium patens*, Swartz.
19. *Aspidium amplum*, Mettenius.
20. *Phegopteris crenata*, Mettenius.
21. *Aspidium megalodus*, Mettenius.
22. *Aspidium*, nearest *A. conterminum*, Willd., but resinous-punctate, and the indusium apparently suppressed.
23. *Phegopteris draconoptera.—Aspid. draconopterum*, Eaton, Fil. Fendl. and Wright. p. 211.
24. *Lindsæa trapeziformis*, Dryander.
25. *Hemitelia grandifolia*, Sprengel.
26. *Trichomanes pinnatum*, Hedw.
27. *Lygodium venustum*, Swartz.
28. *Danæa elliptica*, Smith. The distinctions between this and *D. nodosa* are by no means clear. Mr. Charles Wright, who had good opportunities for observing both in Cuba, considered them forms of but one species.
29. *Selaginella serpens*, Spring.
30. *Aneimia Phyllitidis*, Swartz.
31. *Lygodium volubile*, Swartz.
32. *Alsophila nitens*, J. Smith. Distinct from *A. armata*, Br., which is repre-

sented by Mr. Wright's 950 and 1062, the former being also Hooker's *Hemitelia celolepis*.

33. *Blechnum longifolium*, H. B. K.
34. *Aspidium semicordatum*, Swartz.
35. *Asplenium lunulatum*, Swartz.
36. *Adiantum macrophyllum*, Swartz.
37. *Polypodium incanum*, Swartz.
40. *Gleichenia pubescens*, H. B. K.
41. *Aspidium trifoliatum*, Swartz.
42. *Selaginella patula*, Spring.
45. *Aspidium effusum*, Grisebach.
46. *Asplenium auritum*, Swartz.
47. *Asplenium crenulatum*, Baker.—*A. striatum*, Grisebach.
48. *Adiantum obtusum*, Desv.
51 *Gleichenia pectinata*, Presl.
52. *Polypodium neriifolium*, Schkuhr.
53. *Pteris pungens*, Willdenow.
54. *Aspidium*. Perhaps this is the *Nephrodium deflexum*, J. Smith, referred to in Syn. Fil., p. 292.
55. *Nephrolepis acuta*, Presl.
57. *Meniscium reticulatum*, Swz. Some of the specimens might pass for *M. serratum*, which is scarcely distinct.
58. *Polypodium elongatum*, Swartz.—*Gymnogramme elongatum*, Hooker.
60. *Alsophila ferox*, Presl.
61. *Asplenium cultrifolium*, Linn.
62. *Aneimia Breuteliana*, Presl.—*A. mandiocana*, Grisebach, not of Raddi.
63. *Acrostichum alienum*, Swz., var. *Purdiæi*, Grisebach.
66. *Polypodium sororium*, H. B. K.
68. *Polypodium vacciniifolium*, L. f.
69. *Acrostichum* (*Polybotrya*) *osmundaceum*, Hooker.
70. *Nephrolepis exaltata*, Presl.
71. *Adiantum polyphyllum*, Willd.
73. *Polypodium* (*Phymatodes*) *nematorhizon*, sp. nov.; caudice pertenui scandente, paleis ovatis ornato, frondibus (semipedalibus pollicem fere latis) consimilibus sub-sessilibus tenui-chartaceis lanceolatis acuminatis minute fusco-punctatis, subtus ad costam parcepaleaceis; venulis conspicuis reticulatis; areolis paracostalibus vacuis nisi venula inflexa libera signatis; areolis seriei secundæ sorifieris, tertiæ minoribus sterilibus; soris rotundis a costa remotis venulas singulas vel binas coronantibus.—

This species comes between *P. Swartzii* and *P. lycopodioides*. It has the slender rhizome and the thin texture of the first, (but the chaff of the rhizome is broader and shorter,) and the fronds of the second. The venation varies a good deal even in the same frond. The paracostal areoles are broad, and often have a free veinlet running in from the outer margin of the areole. The sori are borne on either single veinlets or on a pair of veinlets, as in *Phlebodium;* and sometimes the paracostal areole opens into the fruiting areole outside of it, in which case the fertile venule bears a short branch or two below the sorus. A single sterile frond differs very little from the fertile fronds.

74. *Davallia inæqualis*, Kunze.
75. *Blechnum volubile*, Kaulf.
76. *Trichomanes sinuosum*, Richard.
77. *Pteris aquilina*, L., var. *esculenta*, Hooker and Baker.
78. *Adiantum tenerum*, Swartz.

79. *Oleandra nodosa*, Presl.
80. *Cyathea*:—not identified, and possibly new.
81. *Polypodium serrulatum*, Mettenius.
84. *Dicksonia cicutaria*, Swartz.
86. *Hymenophyllum ciliatum*, Swartz.
89. *Lindsæa stricta*, Dryander.
93. *Acrostichum flaccidum*, Fee.
95. *Davallia Saccoloma*, Sprengel.
98. *Pheyopteris flavo-punctata*, Fee.
108. *Selaginella*. (not recognized.)
110. *Lindsæa trapeziformis*, Dryander, var. *falcata*, Baker.
114. *Oleandra neriiformis*, Cav.

LEAVES OF DARLINGTONIA CALIFORNICA AND THEIR TWO SECRETIONS.—Through the kindness of Dr. Gray we are permitted to publish the following interesting communication from Mrs. R. M. Austin, of Pratteville, Plumas Co., Cal.

"Found the sweet secretion, or lure, on all the new leaves of Darlingtonia having the orifices of the hoods open, and captured insects in the liquid at the bottom of the tubes. The sweet secretion was confined to the inner and rough portion of the hoods, the rim or fold around the orifices, and on the outside of the hoods, corresponding in extent to the rough inner part, on both sides of the "fish-tails," and extending down the wing to where it makes the outward bend. This bend can be seen in dried specimens. In no instance have I found the lure below this. I was fortunate in finding about a dozen new leaves having the orifices still closed, and the process of secreting the clear liquid going on. I noted carefully the places of secretion and manner, as well as I could. The liquid is poured, or, apparently, oozes out of the *lower or hairy* part of the tubes, the *rough* part of the hoods, and where the translucent *dots* are on the petioles there are minute globules of clear liquid. The little globules are not easily broken up or separated, but when I would touch them with the point of a pin or a pine leaf, would roll down over the velvety part of the tube, as little globules of mercury do on glass. I tried holding the tubes horizontally, and touching them. In this position the drops would move about and not be broken up. I then rubbed my fingers lightly over the velvety portions of the tubes, thereby removing the fine bloom that covers this portion of the tubes. Now, when I would touch the little drops with my pin they would be broken up and wet the surface. The velvety part of the tubes are always dry and clean, in new and old leaves.

I did not find any of the white larvæ in the leaves having closed orifices, but there were many in the new leaves having the orifices open, and also in the old leaves of last year. Many of the old leaves were pretty well smeared with the lure, which must have been secreted this season, as it could not have remained upon them during the heavy rain and snow storms of last winter."

THE BIG TREES, BY J. G. LEMMON [Concluded from Oct. No.].—*Leviathan*, another prostrate monster, is about the same size, being 270 feet long, and 14 in diameter, but his body is not cut across or so broken as to reveal his rings.

The Father of the Forest.—Armed with the rule, derived as above stated, on the third day I approached the shattered trunk of this famous tree, fabled to have sprung from the earth soon after the deluge of Noah, over 4,000 years ago.

This huge patriarch has been shamefully overrated every way—his size given at 40 feet in diameter and his length at 450 feet. Exact measurement shows the diameter as only 18 feet at a distance of six feet from his roots, and his length about 300 feet. His trunk is broken or burned out in places, thus exposing cross sections where the rings of annual growth may be examined. With a hatchet and

sharp knife I smoothed spaces of wood in three places, widely removed from each other along the trunk, but each one-third of the distance between the bark and heart, and thereon counted one foot of rings, with the result following: First count, 66 feet from roots, 232 rings; second count, 196 feet from roots. 254 rings; third count, 210 feet from roots, 276 rings. The diameter of the tree at each place must be considered, and is as follows: First place of counting, 12 feet; second place, 11 feet, and the third, 10 feet. Now the estimated whole number of rings (age), at each place is obtained by calculating, viz:

232x6,	semi-diameter at	1st	place,	1,392 Rings.
254x5½,	"	" 2d	"	1,342 "
276x5,	"	" 3d	"	1,380 "

Adding these products and dividing by the number of counts, the average of rings (age), is 1,371⅓ years only. Probable full age at base, 1,500 years.

One oft-repeated story is true, however; that of a passage through a part of his body large enough to admit horsemen. This passage burnt out of his heart commences at a point 66 feet from the roots and extends 120 feet, coming out where was once a knot-hole, now enlarged by relic seekers to a wide doorway. I saw several ladies ride horses of medium size through this wooden tunnel, and one day while passing, riding one of my horses and leading the other packed with bulky specimens I turned into the cavity and rode safely through. The ceiling overhead is four to six feet thick, so the grand promenade for visitors above is perfectly safe.

South Park Grove.—This grove contains about 500 trees, some of them of the largest class. One, the home of "Trapper Smith," is a vast swollen trunk at base, 90 feet in circuit and 30 in diameter. The "Livery Stable." which has received 22 horses at a time into its hollowed base, is 84 feet in circuit, and the "Primitive Church" is 81 feet. A fallen tree is 15 feet in diameter 20 feet from the roots. A cavity is burnt in it sufficient to comfortably shelter 25 or 30 horses, or to afford the passage of a Concord coach and its four-horse team for over 200 feet. Another, near "Trapper Smith's Cabin," and used by the tourists as a temporary shelter for their horses, is 16 feet in diameter and hollowed for a long way. These are certainly fair samples of the largest *Sequoias* both living and fallen, and the dimensions above given do not materially differ from some published statements, but counts and estimates of their rings reveal only 1,200 to 1,500 in number.

Other groves visited afforded exactly corroborative evidence, that though the dimensions, being easily determined, are often given accurately, the age has been generally grossly exaggerated.

As late as February last the writer saw a specimen of *Sequoia* in the Central Pacific railroad collection at San Francisco for the Centennial exhibition, which was sent from the Calaveras Mammoth Grove, and is marked "four thousand years old."

Now I firmly believe with Dr. Gray that this is an "over-statement," and, as I said, I am glad that it is such. Let India with her banyan tree—which by the way is a mass of trunks, not a single one—take the palm for growth of 4,000 years, let African baobab trees reach back still nearer to the Garden of Eden, let Palestine boast of her cedars of Lebanon growing since Moses' time, and let Australia present upon every exploration by the close observer trees of undeterminable ancient origin; all these trees of the old world almost, without exception, are slow-growing, fine-grained, stunted, gnarled, decrepit, unsightly old relics of past ages—only interesting because of their great age.

The famous baobab, *Adansonia digitata*, is the largest in circuit at base of any tree yet known, but it is only 70 to 80 feet high. The cedar of Lebanon, with an-

nual layers, so fine that a lens is necessary to distinguish them, is similar in shape, with round-headed top.

Now all observers admit that the California Big Trees, with their vast straight fluted columns, 200 to 300 feet high, and their immense crowns of finely divided, evergreen branches, are the most symmetrical and magnificent in form, the tallest and actually the largest in dimensions of any yet known in all the world. How satisfying to the pride of a true American, to reflect upon the inference derived from this comparatively new fact—formerly a most unwelcome one to the thoughtless, insomuch that loyal Californians prove their loyalty by declaring their belief in the great age of the Big Trees; hence the warfare to which Dr. Gray refers, and the great but pardonable assistance given to the erring side by eminent writers through their praiseworthy love of country.

But science always searches for the truth. Sooner or later the facts will come to be believed and they are always best. And the truth, in this case so long repressed, is most welcome because it gives foundation for the most reasonable and enthusiastic loyalty. Why, these grand giant trees are mere vigorous saplings yet, only 1,200 to 1,500 years old! Ages hence full-grown trees may be seen 50 feet in diameter and 1,000 feet high, only limited by the proximity of brother trees and the depth of the valleys where found. We can't expect them to be so unneighborly as to choke their brothers to death, nor to rise above the leveling winds that sweep over the canons of the Sierra. So let the old world pride itself upon old things, old nations, old creeds, old arts, old customs, old monuments; we of America rejoice that this is a new, unfinished world, with young yet colossal vegetable growths, strange yet beautiful animal forms, modern yet matchless peoples, adolescent yet full-fruit-bearing institutions, unprecedented yet unimaginable destinies!

> "For still the new transcends the old,
> In deeds and wonders manifold."

GRAY'S FLORA OF NORTH AMERICA.—All the botanists will accept with sincere thankfulness this beginning of the new "Flora." A beginning at the middle, indeed, yet not a "beginning of the end;" but so that the work be done the order of its doing may well be left to his choice who is looked upon with one accord as the only one competent for its proper performance. If a preference might be expressed in regard to it, it would doubtless be that Dr. Gray would see fit to give next a revision of what is by far the most intricate and difficult of all the orders of our flora, viz: the *Compositæ*. No portion of the proposed volumes is more needed by botanists or will be more acceptable, and in none is Dr. Gray more truly the sole authority. As he has recently gone over a considerable portion of the ground in his work for the "Botany of California," this would be all the easier for him.

In looking over the present issue, some peculiarities of arrangement at once attract attention. There are no artificial keys either to genera or species. Under each order the ordinal character is followed by a synopsis of the genera, with concise but essentially complete characters, grouped together not only by sub-orders or tribes (where such exist), but also by minor subdivisions, and under characteristic headings, thus avoiding repetition, and leading most directly to the genus sought. When the genus itself is taken up, only such other details, general remarks and synonomy are given as may be needed to fully supplement the previous description. A comparison with the published volumes of "Torrey and Gray's Flora" will make the improvement of plan manifest, and show the appropriateness of the title which Dr. Gray has adopted. The same synoptical method, however, is not carried out in the treatment of species, though they are similarly grouped under common headings so far as they have essential characters in common. The specific descriptions themselves are full, but without redundancy or

needless repetition. Of their technical accuracy and finish, it is unnecessary to speak. It may perhaps be questioned whether it would not have been well, at least in the larger genera, to have subjected the species to the same process as the genera themselves. One would imagine that what is best in the one case, should be best in the other also. Experience in the use of the book should determine. As compared with the "Manual" the descriptions are much fuller, and yet, even with the additional synonyms, etc., the species occupy on the average but little more space. A synoptical key to the orders has been omitted, doubtless because it will come more properly in the first volume at the beginning of the *Gamopetalæ*, of which we have here only the concluding portion.

Much care has evidently been taken in the selection of the type used for different purposes, and in the general "get up" of the book. It is a satisfaction to see that Dr. Gray has not countenanced, in the writing of botanical names, the methods of punctuation and the disuse of capital letters so generally favored by American zoologists and entomologists, and which some would force upon our botanists. Whatever may be the rules of punctuation in Latin or in the Continental languages, in the use of the English language, the same principles should apply in writing upon botany as upon other subjects. In general, thus far, this has been the case. English-writing botanists, and most English Latin-writing botanists, as well, have been united in their adhesion to English customs in this matter, and it is to be hoped that they will so remain.

The portion of the gamopetalous flora here described includes 1,560 native species, belonging to 298 genera. The introduced plants add 26 genera and 96 species. A comparison with the number of species native to the region covered by the "Manual" (as given in the second edition) makes the probable entire number of phenogamous species in North America to lie between nine and ten thousand. The same conclusion is deduced from the number of polypetalous species as enumerated in the "Bibliographical Index." The mean result from the two comparisons is 9,378 species, so that 10,000 is very probably a closely approximate limit. Of the 298 genera, 120 have only a single species each. By far the most important order is that of the *Scrophulariaceæ*, containg 38 genera and 315 species, the next in order being the *Labiatæ*, with 37 genera, but only 189 species. These orders, with the *Ericaceæ*, *Borraginaceæ*, *Hydrophyllaceæ* and *Polemoniaceæ*, include nearly half of the genera and over three-fifths of the species. The largest genera are *Pentstemon* with 71, *Gilia* with 70, and *Phacelia* with 56 species.

As regards the distribution of this flora, it appears from a very cursory examination that it divides readily into an eastern, a central and a western section. The first may be considered as covered essentially by Gray's Manual and Chapman's Flora, and the last in good degree by the Botany of California. Taking these as a guide, and making to each the additions indicated by the present "Flora," it is found that the eastern division includes 610 native species, of which 130 are peculiar to the Manual, 205 to Chapman's Flora, and 275 common to both. The Botany of California includes 567 species, of which 58 belong also to the Atlantic States. Of the remaining 450 species, 48 are high northern and do not enter the United States, 8 are Mexican and not yet found within our limits, 290 are mainly southern, belonging to the warmer and dryer interior, and 103 are found only in the Rocky Mountains or the cooler region westward to Oregon. Had Greenland been included in the limits adopted by Dr. Gray, only two other species (*Veronica fruticulosa* and *Gentiana nivalis*) would have been added, and of these the latter is reported from Labrador.

Numerous additions and changes of nomenclature are made in the several sectional floras above mentioned—some of them new, many to be found in previous publications. About 40 species are added to the flora of the southern Atlantic

States, chiefly from Florida, and nearly 50 species to the flora of California. The changes to be noted in the flora of the Northern States, as given in Gray's Manual (edition of 1868) are less numerous, but some of them are of moment. The following list includes all of the more important:

Phyllodoce taxifolia is referred, with the other species of the genus, to *Bryanthus*, becoming *B. taxifolius*, Gray.

The species of *Azalea* are referred to *Rhododendron*, as was done by Dr. Torrey over 50 years ago, to whom the species are credited. *Rhodora Canadensis* also becomes *Rhododendron Rhodora* of Gmelin Syst. i. 694, 1796) instead of Don as stated.

The order *Aquifoliaceæ* is excluded as belonging rather to the polypetalous division. This is likewise the case with the closely allied southern order *Cyrilleæ*.

The name *Plantago Rugelii*, Decaisne, is restored for the plan which is referred in the Manual to *P. Kamtschatica*. *P. decipiens*, Barneoud, is also substituted for *P. maritima*, var. *juncoides*, which latter species is not found in the Atlantic States.

The genus *Steironema*, Raf., is restored for the section of that name under *Lysimachia*.

Utricularia striata, LeConte, is referred to *U. fibrosa*, Walter. The questionable species mentioned in the Manual at the end of the genus is made var. *cleistogama* of *U. sublata*.

Phelipæa Ludoviciana becomes *Aphyllon Ludovicianum*, Gray.

Chelone obliqua, Linn., is added—a bright rose-colored species, ranging from Illinois and Virginia to Florida.

Pentstemon digitalis becomes *P. lævigatus*, Solander.

Gerardia integrifolia, Gray, is *G. lævigata*, Raf., and *G. setacea* (not Walt.) is *G. Skinneriana*, Wood.

Bartsia Odontites, Huds., is added as sparingly naturalized on our northern coast.

The varieties of *Lycopus Europæus* are established as species, viz: *L. sessilifolius*, Gray, *L. rubellus*, Mœnch, and *L. sinuatus*, Ell.

Pycnanthemum pilosum is made a variety of *P. muticum*.

Calamintha Nuttallii, Benth., is restored.

Monarda clinopodia, Linn., is added, intermediate between *M. didyma* and *M. fistulosa;* also *Physostegia intermedia*, Gray, of Western Kentucky and south-westward.

Stachys aspera, Michx., and *S. cordata*, Riddell, are restored for varieties of *S. palustris*, the var. *glabra* being referred to the former.

Onosmodium molle is made a variety of *O. Carolinianum*.

Lithospermum longiflorum is referred to *L. angustifolium*.

Myosotis palustris, var. *laxa*, becomes *M. laxa*, Lehm.

Cynoglossum Morisoni is transferred to *Echinospermum* as *E. Virginicum*, Lehm.

Heliotropium tenellum, Torr., is to be added as found in Kentucky.

Ellisia ambigua is reduced to a form of *E. Nyctelea*.

Phlox ovata, Linn., is restored for the broad-leaved form of *P. Carolina*, while var. *nitida* is referred to *P. glaberrima*, var. *suffruticosa*, Gray. *P. amœna*, Sims, is substituted for *P. procumbens* not Lehm.), and *P. Stellaria*, Gray, is added.

Diapensia and *Pyxidanthera* are united with *Galax* and the southern genus *Shortia* to form the order *Diapensiaceæ*.

Calystegia is returned to *Convolvulus*, where our species were originally placed by Linnæus.

The species referred in the Manual to *Bonamia* are transferred (following Benth. & Hook.) to *Breweria*, R. Br., as distinguished from *Bonamia*, Thouars, by the plicate corolla. It is perhaps through oversight that the species are not cred-

ited to Benth. & Hook., who refer to the Manual for the three known North American species.

The perennial forms of *Physalis* are referred to *P. Virginica*, Mill., instead of to *P. viscosa*, Linn., and to *P. lanceolata*, Michx., in place of *P. Pennsylvanica*, L.

Gentiana detonsa becomes *G. serrata*, Gunner, and var. *linearis* of *G. Saponaria* is kept distinct as *G. linearis*, Fries. The recent discovery of *G. amarella*, var. *acuta*, in Vermont should be noted.

Forsteronia difformis is transferred, with some doubt, to *Trachelospermum*, Lemaire, a genus of Eastern Asia.

Acerates paniculata is referred to *Asclepiodora*, a genus proposed by Dr. Gray for all the later species of *Anantherix*, Nutt., which is restricted to the single species upon which it was founded.

Ligustrum vulgare is inadvertently omitted.

Olea Americana is separated from *Olea*, Tourn., by Benth. & Hook., and carried to the Chinese genus *Osmanthus*, Lour.—SERENO WATSON *in American Naturalist.*

[The following communication was mislaid at its receipt and came to the eyes of the Editors only in time for insertion in this number.—EDS.]

"FERNS OF KENTUCKY, WITH SIXTY FULL-PAGE ETCHINGS AND SIX WOOD-CUTS," etc., by *John Williamson*.—Louisville, John P. Morton & Co., 1878.—

The desire of the author of this work was to make a little hand-book, which the Fern-lovers of Kentucky would carry with them in their excursions, and which would enable them to easily recognize the ferns they might meet with. The descriptions of the species are given in popular language, as far as is possible, and every plant is illustrated by an etching made by the author's own hand. A few introductory chapters treat of the general nature of ferns, and of their structure, fertilization, classification, and the methods of collecting and drying or of cultivating them. The whole is written in clear, simple English, and makes a very readable book, which is certainly well adapted to the end desired. The author gives localities for all but the very commonest species, and very often there is a useful hint as to the best mode of cultivating some particular species. The etchings are mostly very characteristic of the species, and the author is certainly to be commended for his ingenuity in representing a large fern on a small plate. If I have counted them correctly, Mr. Williamson gives forty species as found in Kentucky, including two, *Asplenium Bradleyi* and *Trichomanes radicans*, which are not given in Gray's Manual, and omitting, as not native to his State, about eighteen or twenty, which occur in various parts of the Northern States. Of course, such northern ferns as *Aspidium fragrans* and *A. Lonchitis*, *Woodsia glabella* and *W. hyperborea*, are not to be expected in Kentucky, nor of course the New Jersey *Schizæa*, or the Northwestern *Allosorus acrostichoides;* but one would have supposed that *Struthiopteris Germanica* might occur in Kentucky, and perhaps *Woodwardia Virginica*. It is almost safe to promise that diligent search in the south-eastern counties will bring to light *Asplenium parrulum*, while *Phegopteris Dryopteris* and one or more of the little *Botrychia* may possibly lurk in some cool recess of the Cumberland mountains. At any rate, if they are there, we may be very sure that so enthusiastic and pains-taking a Pteridologist as Mr. Williamson will be sure to find them.—DANIEL C. EATON, *New Haven, July* 22, 1878.

Several notices of recent publications had been prepared for this number, but were crowded out by other matter. They will appear in the December number.—EDS.